

REMARKS

It is noted that the Certified Copy and claim for priority under 35 USC 119 have been placed of record.

It is also noted that claims 1-14 and 44-46 have been allowed and further that claims 18-20, 32-35, 43 and 47 will be allowed if placed in independent form. A few of the allowed claims have been amended to improve their form without doing anything to jeopardize their continued allowance. If the Examiner disagrees, he is requested to call the undersigned attorney who will promptly correct any matters that may be found.

Claim 15 has been amended to include allowable claim 18, which should make it and its dependent claims 16, 17, 19-24 allowable.

Allowable claim 18 has also been presented in different form as new claim 48.

Claim 32 has been rewritten in independent form so that it may be allowed along with its dependent claims 33,34,35.

Claim 43 has been incorporated into its parent claim 40 so that it and its dependent claims 41, 42 and 44-47 may be allowed.

It is thought that all of the Examiner's objections to language have been corrected. If needed they will be corrected promptly upon receipt of a telephone call from him explaining any problem in greater detail.

New claim 48 is modeled on allowable claim 18 and defines a retaining wall including an outer portion formed from a plurality of tyres that are arranged adjacent to the embankment. The tyres in the outer portion have an intact tread portion, together with a reinforcing section as set forth in claim 15. Foehrkolb (5,378,088) does not define such an outer portion. Accordingly, new claim 48 and its dependent claims 19, 20 are patentably distinct over Foehrkolb. In Foehrkolb, the outer portion is formed from tyre sidewall segments, resulting in an entirely different structure which requires more complicated pinning arrangements, as clearly disclosed in Foehrkolb.

The Examiner has indicated that independent claim 25 is anticipated by Soviet SU1395-737. However, that Soviet document does not disclose the step of "forming a base for the retaining wall adjacent to the embankment and that the base slopes downwardly to the embankment from surrounding ground." The formation of such a slope enables the plurality of tyres to be laid along the base so that a central axis of each tyre is inclined with respect to both vertical and horizontal. If the Examiner believes that an explanatory statement is desirable, the last clause of claim 25 may be rewritten, as follows:

(b) arranging a plurality of tyres in a plurality of courses adjacent to the embankment and along the base whereby a central axis of each tyre is inclined to both vertical and horizontal.

Claim 26 has been amended to indicate that the wall is "inclined" with respect to vertical. Because the wall in DE 3,829,615 is not inclined in the same way, this rejection is overcome. The wall in DE 3,829,615 has a flat base (i.e. this means the tyres are arranged like the unshaded tyres are arranged in Figure 1 of U.S. 4,080,793).

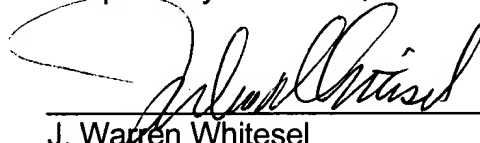
The Examiner has been required to combine SU1395-737 with DE 3,829,615 in an effort to reject the claims. In order to combine references to reject a claim it is necessary to show an inducement to combine the references, In re Rouffet, 47 USPQ2d 1453 (CAFC, 1998), affirmed in Ruiz v. A.B. Chance Co., 57USPQ2d 1161 (CAFC, 2000). Without citing prior art showing of such an inducement, the combination of references amounts to a use of hindsight growing out of applicants' teaching.

For the foregoing reasons, it is thought that the application is now in condition for allowance. Therefore, if the Examiner should disagree, he is requested to telephone the undersigned attorney before issuing a new office action. Any reasonably necessary amendments will be made promptly.

Reconsideration and allowance are requested.

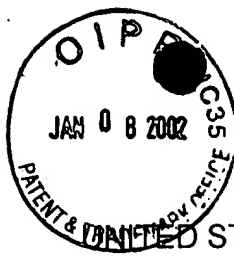
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Respectfully submitted,



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IN THE  
UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF: CALLINAN et al.	)	Group Art Unit: 3673
	)	
CASE: 201423-0009	)	Examiner: F. Langman
	)	
SERIAL NO.: 09/428,508	)	COVER SHEET FOR
	)	"VERSION WITH MARKINGS
FILED ON: October 27, 1999	)	TO SHOW CHANGES MADE"
	)	IN ACCORDANCE WITH 37
FOR: Retaining Wall System	)	CFR 1.121

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1. (Amended) A retaining wall for retaining an embankment or similar structure including a plurality of tyres arranged in a plurality of courses adjacent to the embankment and such that a central axis of each tyre in an outer face of the retaining wall [off set from] is inclined to both vertical and horizontal.

2. (Amended) A retaining wall as claimed in claim 1 wherein each tyre's central axis is inclined to [off set from] vertical at a batter angle ranging from 10° to 20°.

4. (Amended) A retaining wall as claimed in claim 1 [any one of the preceding claims] wherein each tyre is at least partially filled with a fill material, and further fill material fills gaps between the tyres, and between the tyres and the embankment.

6. (Amended) A retaining wall as claimed in claim 5 wherein the granular [or] particulate material is selected from a group consisting of cobble, and [and/or] or shredded tyre.

7. (Amended) A retaining wall as claimed in claim 1 [any one of the preceding claims] wherein at least some of the tyres are each cut:

(a) in a plane between opposing side walls thereof and are arranged in the wall so that both side walls generally face downwards; or [and/or]

(b) to remove a substantial proportion of one of the side walls and are arranged in the wall so that the remaining uncut side wall generally faces downwards.

11. (Amended) A retaining wall for retaining an embankment or similar structure that is formed from a plurality of tyres arranged in a plurality of courses adjacent to the embankment wherein at least some of the tyres are each cut:

(a) in a plane between opposing side walls thereof and such that a section of the tyre remains uncut to provide a hinge for pivoting of the tyre portions thereabout, and so that the tyre[s] can be arranged in the wall such that both side walls generally face downwards; or [and/or]

(b) to remove a substantial proportion of one of the side walls wherein the removed side wall is arranged in the tyre to be adjacent to the remaining side wall, and the tyres are arranged in the wall so that the remaining uncut side wall generally faces downwards.

14. (Amended) A retaining wall as claimed in claim 11 [any one of the claims 11 to 12] wherein the courses of the retaining wall are arrayed [constructed] in a manner as defined in claim 11 [any one of claims 1-6].

15. (Amended) A retaining wall for retaining an embankment or similar structure including a reinforcing section extending rearwardly into the wall from an outer portion thereof, the reinforcing section being part of the retaining wall and being formed from:

(a) longitudinal strips formed from tyre tread; or [and/or]

(b) conveyor belt lengths;

wherein the treads [and/] or belt lengths are joined to define a grid formation.

17. (Amended) A retaining wall as claimed in either claim 15 or claim 16 wherein the reinforcing section is formed by joining together a plurality of tyre tread lengths [and/or] and conveyor belt lengths.

19. (Amended) A retaining wall as claimed in claim 15 or 48 [10] wherein said individual belt lengths are attached, linked, or threaded to/through adjacent belt lengths to define the grid formation.

20. (Amended) A retaining wall as claimed in [any one of] claim[s] 15 or 48 [to 19] wherein the reinforcing section is formed from a plurality of sections cut from mining conveyor belts.

21. (Amended) A retaining wall as claimed in [any one of] claim[s] 15 [to 29] wherein the outer portion of the wall is formed from a plurality of elements that are arranged in a plurality of courses adjacent to the embankment and a reinforcing section is provided for each course and is arranged to extend generally horizontally or to be downwardly inclined in the wall.

22. (Amended) A retaining wall as claimed in claim 15 [any one of the claims 15 to 21] wherein [an] the outer [face] portion of the wall is [defined by] formed from a plurality of tyres that are arranged in a plurality of courses adjacent to the embankment, [wherein] with at least some of the tyres in the owner portion of the wall [have] having an intact tread portion.

23. (Amended) A retaining wall as claimed in claim 15 [any one of claims 15 to 22] wherein the outer portion of the wall is formed from a plurality of tyres arranged in a plurality of courses in a manner as defined in claim 1 [any one of the claims 1 to 14].

24. (Amended) A retaining wall as claimed in any one of the claims 1 [to 14 or], 21, 22, 23, or 24, wherein the plurality of courses define a row and wherein a plurality of rows are arranged adjacent to the embankment.

26. (Amended) A method as claimed in claim 25 wherein the base is formed to provide an [offset] incline in the wall to [from] vertical, at a batter angle of 10° to 20°.

27. (Amended) A method as claimed in claim 26 wherein [the] a central axis of each tyre in the wall is [de]inclined [offset] from vertical at an angle that is approximately equal to the batter angle.

28. (Amended) A method as claimed in [any one of] claim 27 wherein each course of tyres is arranged to be offset along the line of the course from adjacent course(s).

29. (Amended) A method as claimed in [any one of] claim[s] 26 [to 28] wherein in step (b) a course of tyres is laid and each tyre is at least partially in-filled with a fill material prior to laying the next course.

32. (Amended) A method for forming a retaining wall for retaining an embankment or similar structure comprising the steps of:



(a) forming a base for the retaining wall adjacent to the embankment and that slopes downwardly to the embankment from surrounding ground;

(b) arranging a plurality of tyres in a plurality of courses adjacent to the embankment and alone the base.

[A method as claimed in any one of claims 25 to 31] wherein, prior to laying a course, at least some of the tyres in the course are each cut:

(i) in a plane between opposing side walls thereof and are arranged in the wall[s] so that both side walls generally face downwards; or [and/or]

(ii) to remove a substantial proportion of one of the side walls, and are arranged in the wall[s] so that the remaining uncut side wall generally faces downwards.

36. (Amended) A method for forming a retaining wall from a plurality of tyres comprising the step of cutting at least some of the tyres:

(a) in a plane between opposing side walls thereof, wherein a section of the tyre remains uncut to provide a hinge for pivoting of the tyre portions thereabout, and then arranging those tyres in the wall[s] so that both side walls generally face downwards; or [and/or]

(b) to remove a substantial portion of one of the side walls, with the removed side wall being arranged in the tyre to the adjacent to the remaining side wall, and then

arranging those tyres in the wall so that the remaining uncut side wall generally faces downwards.

39. (Amended) A method as claimed in [any one of] claim[s] 36 wherein a plurality of tyre [the] courses are constructed in accordance with the method as defined [any one of] in claim[s] 25[to 31].

40. (Amended) A method for forming a retaining wall for retaining an embankment or similar structure including the step of positioning in the wall a reinforcing section that is formed from:

- (a) longitudinal strips formed from tyre tread; or [and/or]
- (b) one or more conveyor belt lengths;

wherein each the reinforcing section is formed into a grid structure by joining together a plurality of tyre tread lengths or conveyor belt lengths.

44. (Amended) A method as claimed in either [any one of] claims 41 or 42 [43] wherein the elements are tyres.

46. (Amended) A method as claimed in [any one of] claim[s] 41 [to 45] wherein the outer face of the wall is formed using a method as defined in [any one of] claim[s] 25 [to 39].

47. (Amended) A method as claimed in any one of the claims 40-42 [to] and 44-46 wherein the conveyor belt lengths [sections] are cut from a mining conveyor belt.

Please cancel claim 18 and rewrite it in independent form as new claim 48, as follows:

48. A retaining wall for retaining an embankment or similar structure including: an outer portion formed from a plurality of tyres that are arranged adjacent to the embankment with the tyres in the outer portion having an intact tread portion; a reinforcing section extending rearwardly into the wall from the outer portion and being formed from:

(a) longitudinal strips formed from tyre treads; or

(b) conveyor belt lengths.

Please enter the following new claims 49-51.

49. A reinforcing section for use in retaining an embankment or similar structure that is a grid formed from:

(a) longitudinal strips formed from tyre treads; or

(b) conveyor belt lengths.

50. A reinforcing section as claimed in claim 49 wherein individual lengths are attached, linked or threaded to/through adjacent lengths to define the grid.

51. A tyre for use in a retaining wall, the tyre being cut:

(a) in a plane between opposing side walls thereof and such that a section of the tyre remains uncut to provide a hinge for a pivoting of the resulting tyre portions

thereabout, and so that the tyre can be arranged in the wall such that both side walls generally face downwards; or

(b) to remove a substantial proportion of one of the side walls wherein the removed side wall is arranged in the tyre to be adjacent to the remaining side wall, an so that the tyre can be arranged in the wall so that the remaining uncut side wall generally faces downwards.

52. A tyre as claimed in claim 51 wherein (b) a liner is positioned between the removed and remaining side walls for covering the lower opening of the tyre when arranged in the wall.